Publication No. 7C8299
15MAR99
Supersedes 7C8299
30JUL98

MODIFICATION INSTRUCTIONS
for the
Kodak X-Omat MULTILOADER 300
Service Code: 3058
Modification No. 41/43
Kodak X-Omat 270 RA PROCESSOR
Service Code: 3059
Modification No. 23/24
Kodak X-Omat 180 LP/180 LPS PROCESSORS
Service Codes: 3227, 3198
Modification No. 10/12

Type 2

Purpose: To upgrade the DRYER RACK with new RACK SIDEPLATES to improve reliability.
Mods 10/23/41 will:
- improve the film path by making changes to the positions of the “F” and “E” ROLLERS.
- make changes to the diameter of the new “F” and “E” ROLLER GEARS.
- make the bottom GUIDE SHOE adjustable.
- include new SIDEPLATE BEARINGS which have a longer service life.

Mods 12/24/43 will:
- reduce wear and binding in the RACK by installing new BEARING WASHERS.

Important
Use qualified personnel to install this modification.

Service Effects:	Make changes to the Illustrated Parts Lists to include the new part numbers.
Special Requirements:	None
Serial Numbers:	There are two modifications for the PROCESSORS. The modifications were combined since they are both for the DRYER RACK. See “Serial Numbers:” on Page 2.
Installation Time:	1.5 hours
Special Tools:	None
Parts Status:	Parts are available at Service Parts Management.
Parts Requirements:	See “Parts Lists:” on Page 2.

HEALTH IMAGING

© Eastman Kodak Company

PLEASE NOTE The information contained herein is based on the experience and knowledge relating to the subject matter gained by Eastman Kodak Company prior to publication.

No patent license is granted by this information.

Eastman Kodak Company reserves the right to change this information without notice, and makes no warranty, express or implied, with respect to this information. Kodak shall not be liable for any loss or damage, including consequential or special damages, resulting from any use of this information, even if loss or damage is caused by Kodak's negligence or other fault.

This equipment includes parts and assemblies sensitive to damage from electrostatic discharge. Use caution to prevent damage during all service procedures.

Serial Numbers:

101 - 1659	270 RA INTEGRATED PROCESSOR in a MULTILOADER 300
101 - 2495	270 RA PROCESSOR
101 - 4099 and 100001 - 100073	180 LP PROCESSORS
10001 - 13564 and 125001 - 125229	180 LPS PROCESSORS

Parts Lists:

MODIFICATION KIT 7C8712 for the 270 RA PROCESSOR (Mod 23/24) and the 270 INTEGRATED in a MULTILOADER (Mod 41/43) includes:

Part No.	Description	Qty.
3H8277	SIDEPLATE - Drive Side	1
9B8871	SIDEPLATE - Non-Drive Side	1
1C7245	"F" ROLLER GEAR	1
1C7244	"E" ROLLER GEAR - snap-in	1
544267	GUIDE SHOE BRACKET SCREW	2
852611	GUIDE SHOE BRACKET WASHER	2
9B8719	BEARINGS	18
3H8282	BEARING WASHERS	14
7C8299	MODIFICATION INSTRUCTIONS	1

MODIFICATION KIT 7C8713 for the 180 LP and 180 LPS PROCESSORS (Mod 10/12) includes:

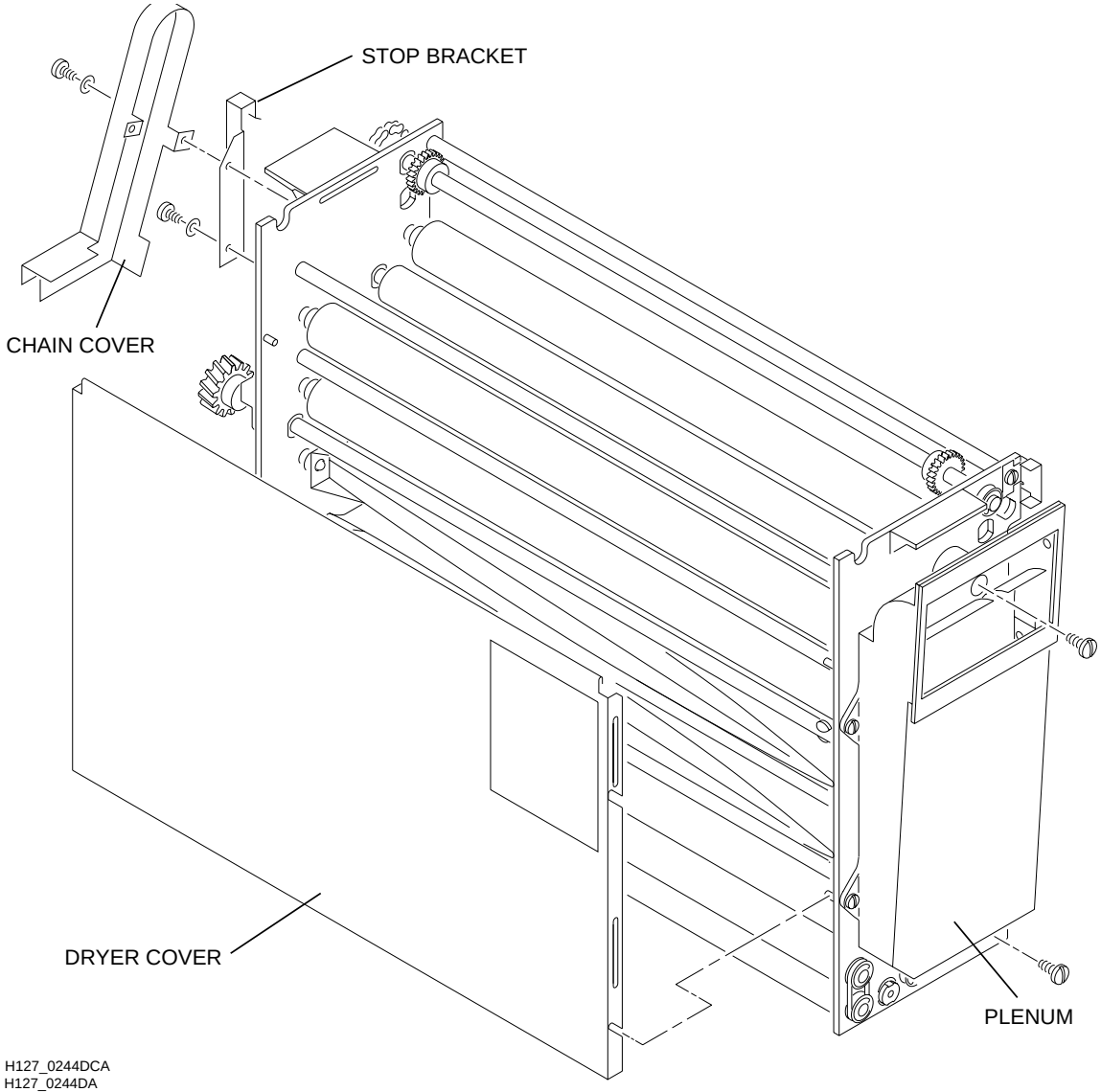
Part No.	Description	Qty.
3H8276	SIDEPLATE - Drive Side	1
9B8873	SIDEPLATE - Non-Drive Side	1
1C7245	"F" ROLLER GEAR	1
1C7244	"E" ROLLER GEAR - snap-in	1
544267	GUIDE SHOE BRACKET SCREW	2
852611	GUIDE SHOE BRACKET WASHER	2
9B8719	BEARINGS	16
3H8282	BEARING WASHERS	14
7C8299	MODIFICATION INSTRUCTIONS	1

Upgrading the DRYER RACK

Note

- Modification 10 may be installed already on some 180 LP / LPS PROCESSORS. It is still necessary that all of the Steps in these instructions are followed.
- All of the Figures are of a 180 LP PROCESSOR. The DRYER RACK in the 270 RA PROCESSOR is similar. Save all of the parts removed except for the parts that are replaced by new parts in the KIT.

Figure 1 **DRYER RACK**



Warning

Dangerous Voltage

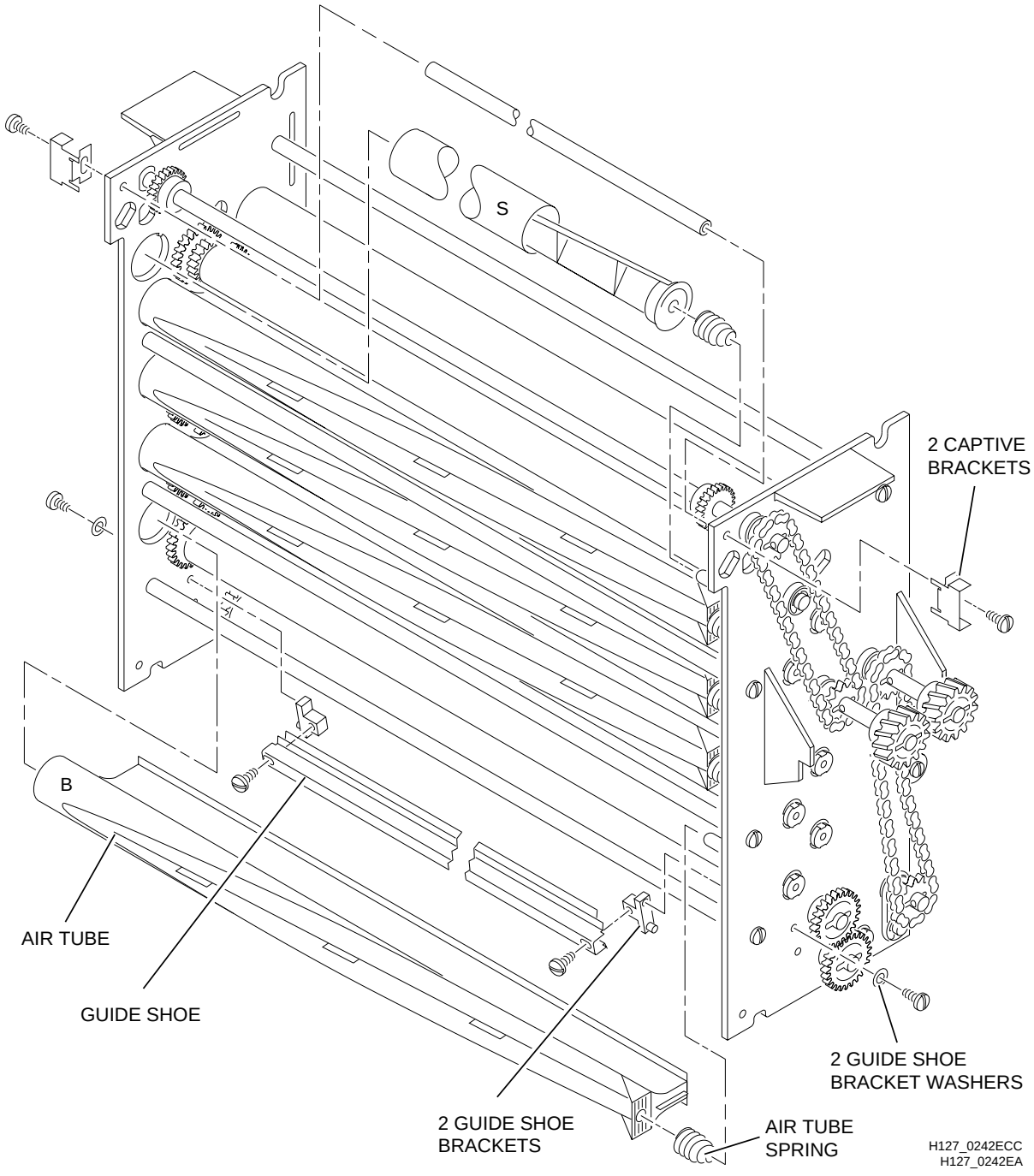
[1] De-energize the PROCESSOR.

[2] Remove the DRYER RACK from the PROCESSOR.

[3] Remove the following from the DRYER RACK:

- DRYER COVER
- TOP COVER and top GUIDE SHOE, if necessary (parts not shown)
- PLENUM
- STOP BRACKET
- CHAIN COVER (newer RACKS have a larger COVER than shown)

Figure 2 **AIR TUBES, GUIDE SHOE, and CAPTIVE BRACKETS - Drive Side View**



[4] Remove:

- AIR TUBES
- AIR TUBE SPRINGS
- bottom GUIDE SHOE
- 2 GUIDE SHOE BRACKETS
- 2 CAPTIVE BRACKETS, if necessary

Figure 3 **SIDEPLATES, ROLLERS, and GEARS - Drive Side VIew**

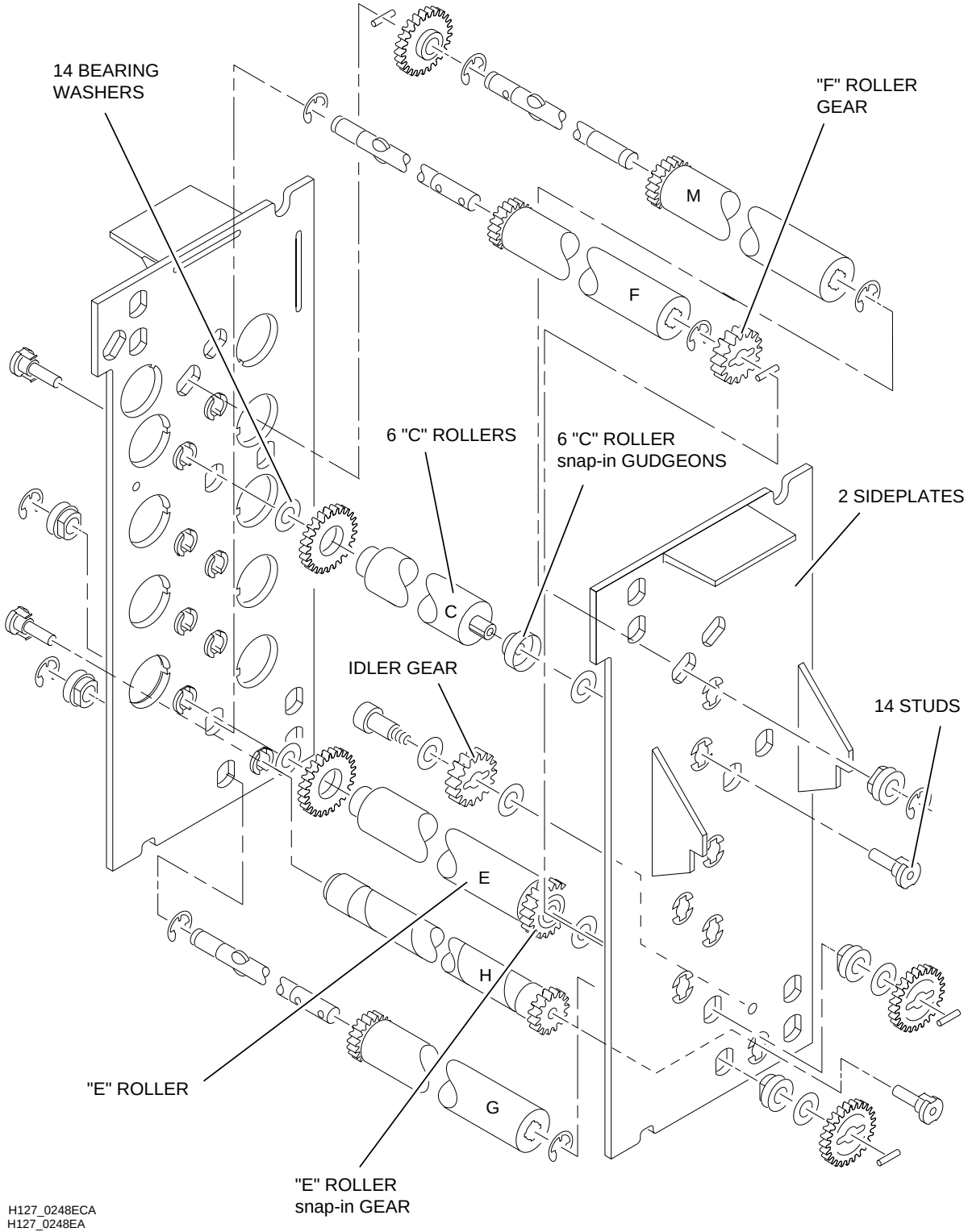
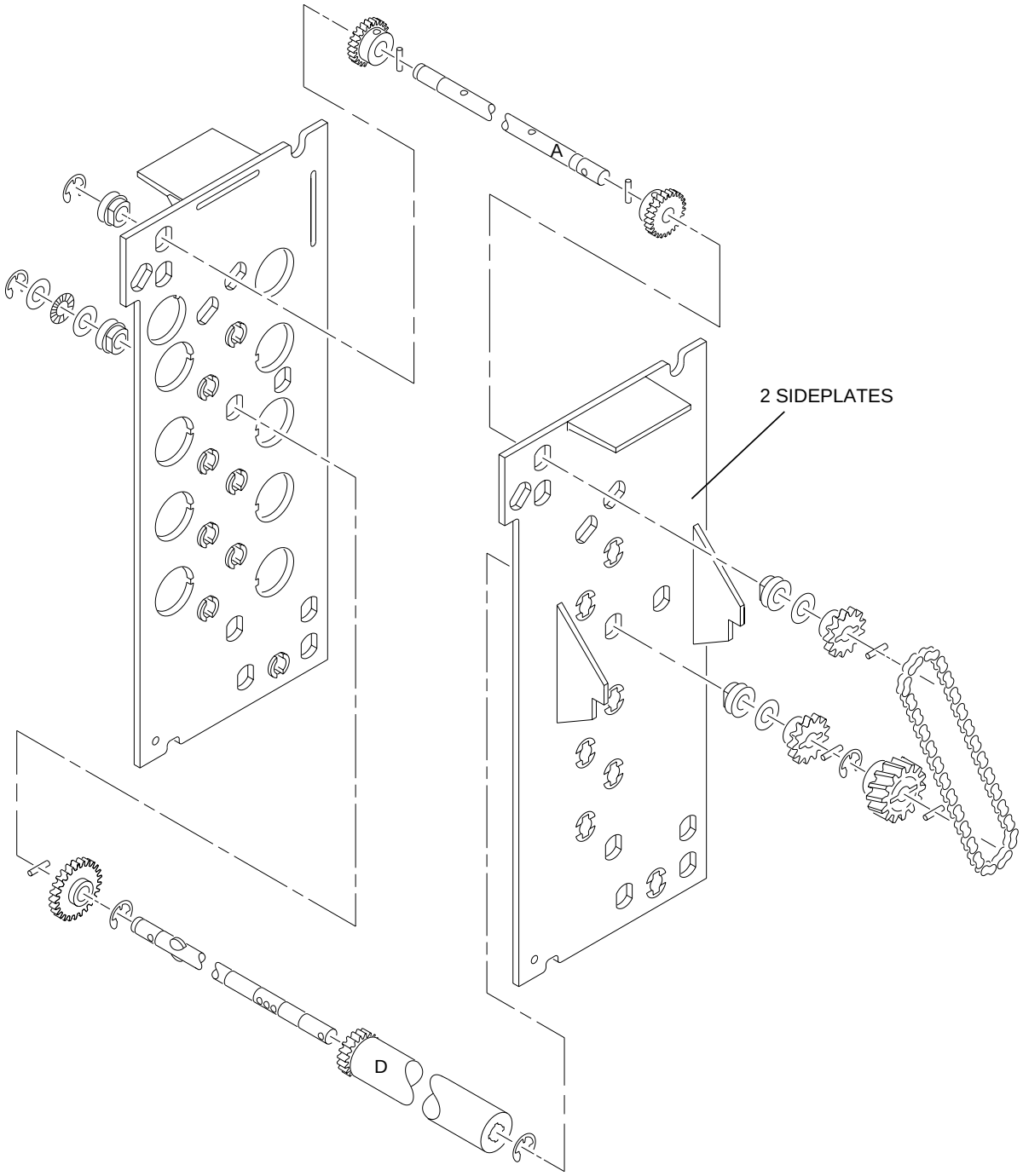
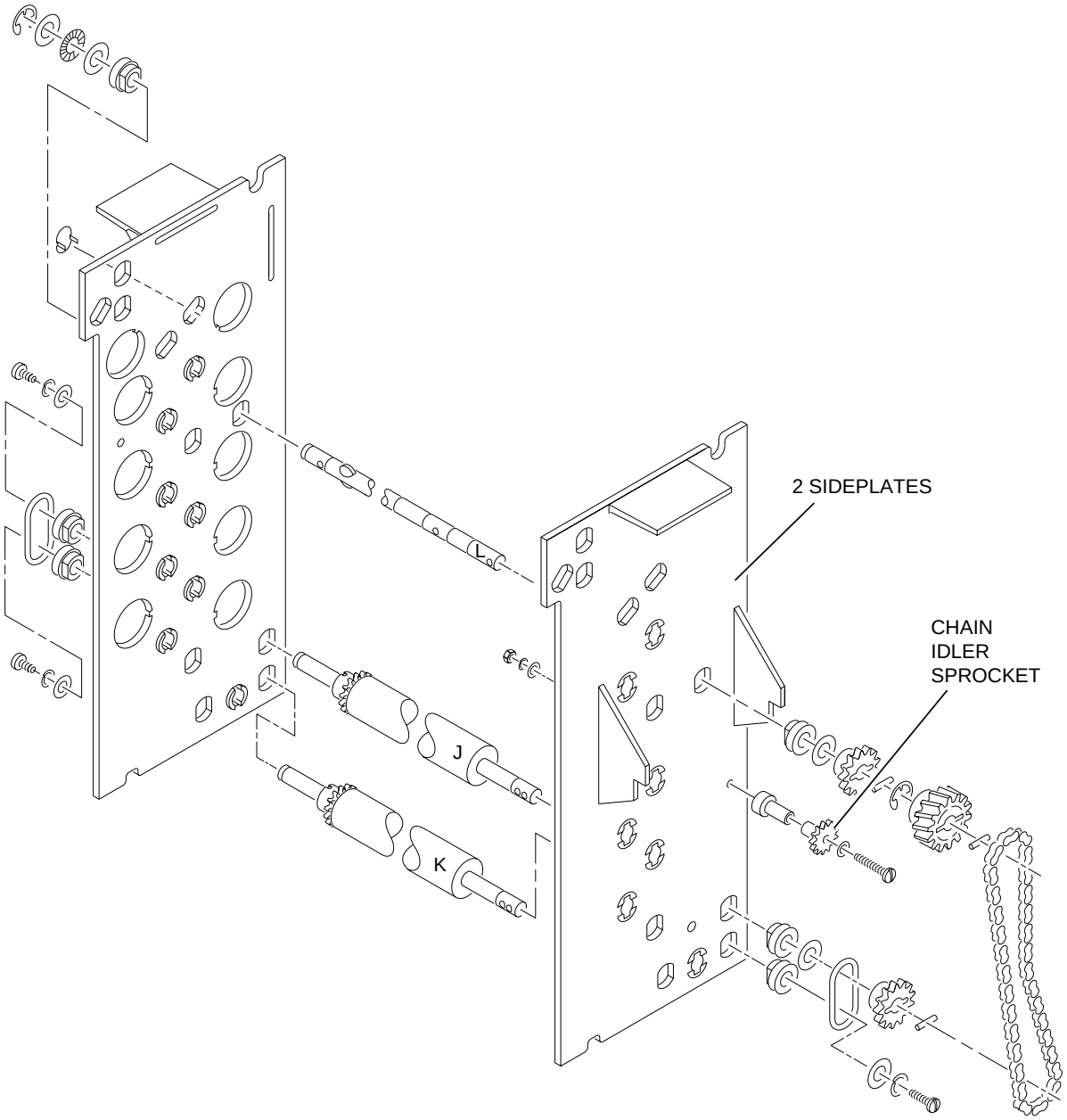


Figure 4 **SIDEPLATES, DRIVE CHAIN, and SPROCKETS - Drive Side View**



H127_0240ECA
H127_0240EA

Figure 5 **SIDEPLATES, DRIVE CHAIN, and SQUEEGEE ROLLERS - Drive Side View**



H127_0241ECA
H127_0241EA

Note

"J" and "K" ROLLERS may have E-RINGS and not SCREW FASTENERS.

[5] Remove the old SIDEPLATES. See Figures 3, 4, and 5.

[6] See Figure 3. Remove and discard:

- existing GEAR from the “F” ROLLER (drive side)
- existing snap-in GEAR from the “E” ROLLER (drive side)
- 6 snap-in GUDGEONS from the 6 “C” ROLLERS

Installing the New SIDEPLATES and Adjusting the GUIDE SHOE

[1] See Figure 3. Install the new snap-in “E” ROLLER GEAR 1C7244 on the “E” ROLLER.

[2] Remove the CHAIN IDLER SPROCKET in Figure 5 and the IDLER GEAR in Figure 4 from the old SIDEPLATE and install them on the new drive side SIDEPLATE.

Important

Do **not** install the following parts at this time: See Figure 6.

- “E” ROLLER
- bottom “C” ROLLER
- 2 bottom AIR TUBES

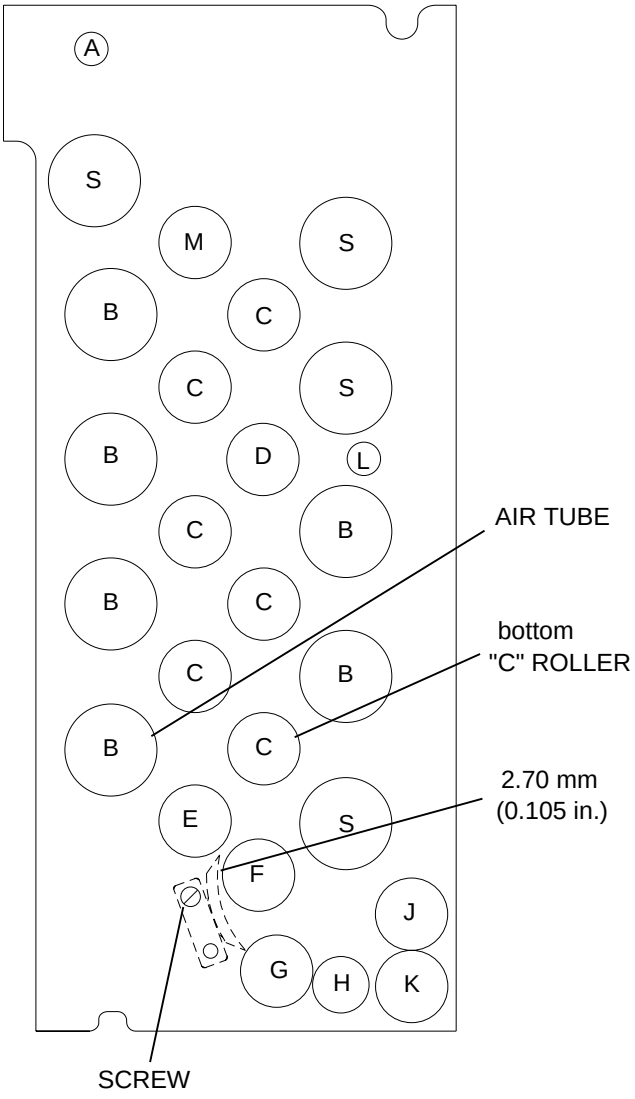
[3] See Figures 3, 4, and 5. Install:

- the parts removed in Step 5 on Page 8.
- the new BEARING WASHERS, one on each end of each “C” ROLLER between the SIDEPLATE and the end of the ROLLER.
- the new “F” ROLLER GEAR 1C7245 (located inside the SIDEPLATE) on the “F” ROLLER.

[4] See Figure 2. Install the parts removed in Step 4 on Page 5.

- use new SCREWS 544267 and WASHERS 852611 to install the bottom GUIDE SHOE BRACKETS on the SIDEPLATES.
- check that the long edge of the bottom GUIDE SHOE is in the direction of the film path.

Figure 6 **GUIDE SHOE**



H127_0243CCB
H127_0243CA

[5] See Figure 6. Loosen the SCREWS.

[6] Set the distance between the “F” ROLLER and the GUIDE SHOE:

(a) Place a 2.70 mm (0.105 in.) FEELER GAUGE between the “F” ROLLER and the long edge of the GUIDE SHOE. See Figure 6.

(b) Hold the GUIDE SHOE against the FEELER GAUGE and tighten the SCREWS.

(c) Check that the clearance between the GUIDE SHOE and the ROLLER is 2.70 mm (0.105 in.) +/- 0.10 mm (0.005 in.) at both ends and in the center.

Note

Apply a small amount of water on the BEARING WASHER to help hold it in place on the “E” ROLLER.

[7] See Figure 3. Install the “E” ROLLER and the bottom “C” ROLLER using a new BEARING WASHER at each end of each ROLLER between the SIDEPLATE and the end of the ROLLER.

[8] Install the 2 bottom AIR TUBES.

[9] See Figure 1. Install the parts removed in Step 3 on Page 3 to assemble the DRYER RACK.

[10] Check the squareness of the DRYER RACK on a smooth, flat surface.

[11] Rotate the DRIVE SHAFT on the DRYER RACK and check for interference.

[12] Install the DRYER RACK in the PROCESSOR.

Completing the Modification

Figure 7 **270 RA PROCESSOR**

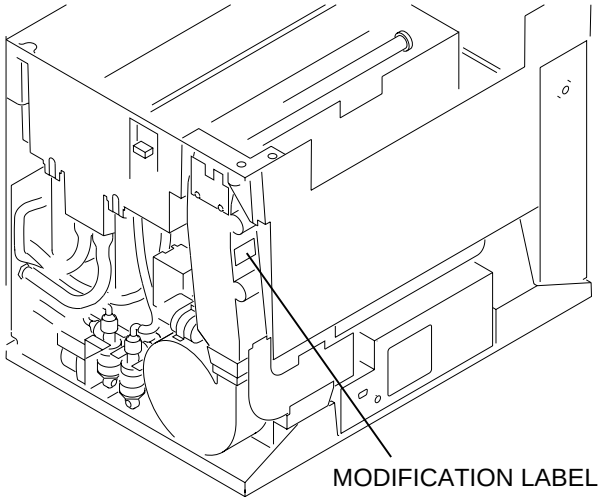


Figure 8 **180 LP or 180 LPS PROCESSORS**

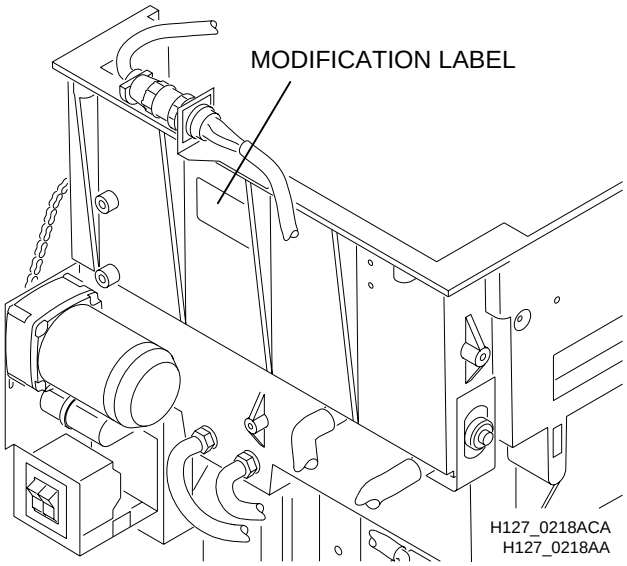


Figure 9 **MULTILOADERS 300 with Serial No. 1369 and Below**

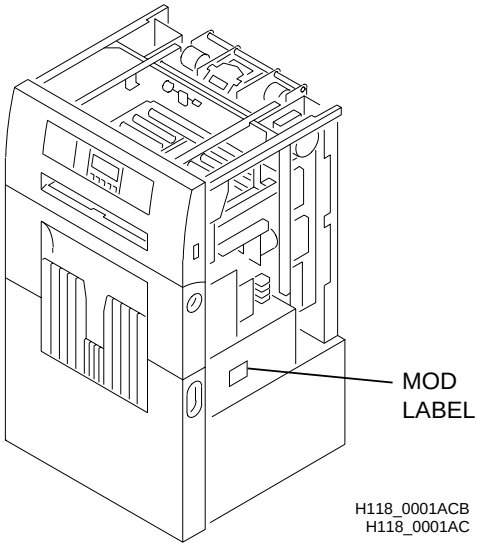
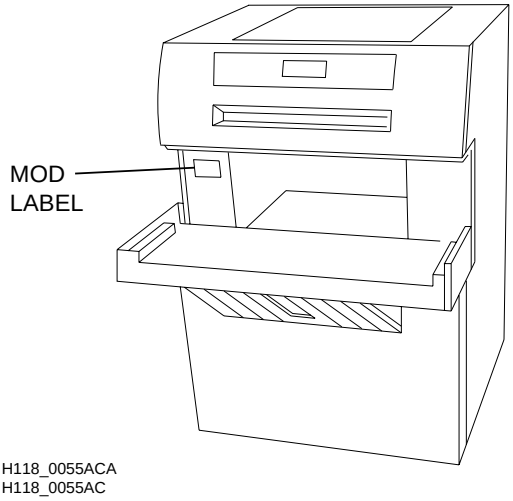


Figure 10 **MULTILOADERS 300 with Serial No. 1370 and Above**



[1] Circle:

- "23" and "24" on the MODIFICATION LABEL on the 270 RA PROCESSOR.
- "10" if necessary, and "12" on the MODIFICATION LABEL on the 180 LP or 180 LPS PROCESSOR.
- "41" and "43" on the MODIFICATION LABEL on the MULTILOADER 300.

Assembling and Checking PROCESSOR Operation

[1] Assemble the PROCESSOR and check for correct operation.

[2] Check for correct operation of the DRYER RACK by processing 35.0 x 43.0 cm (14.0 x 17.0 in.) films.

Note

If the DRYER RACK bottom GUIDE SHOE causes film scratches or stubbing, do the following adjustments:

- for scratches, **increase** the distance approximately 0.10 mm (0.005) between the GUIDE SHOE and the “F” ROLLER.
- for stubbing, **decrease** the distance approximately 0.10 mm (0.005 in.) between the bottom GUIDE SHOE and the “F” ROLLER.
- after making the adjustment, check for film quality by processing the film. Do the above procedures again as necessary, to minimize the film scratching or stubbing.

Publication History

Print Date	Pub. No.	ECO No.	Affected Pages	File Name	Notes
24MAR98	7C8299	2619-169	All	ma3058_41_24mar98.doc	First printing
30JUL98	7C8299	2650-194	All	mb3058_43_30jul98.fm	Add Mods 12, 24, and 43.
15MAR99	7C8299	2592-416	Pages 3 and 4.	mb3058_43_15mar99..fm	Old Page 3: Deleted “Preliminary Instructions”. New Page 3: Added Note.

Kodak and *X-Omat* are trademarks.

mb3058_43_15mar
99.fm

Health Imaging

EASTMAN KODAK COMPANY ● ROCHESTER, N.Y. 14650